

*With the Author's compliments*

THE

STUDY OF MENTAL DISEASE:

BEING THE

*Introductory Lecture delivered in the University of  
Edinburgh, on the Institution of the Lectureship  
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## THE STUDY OF MENTAL DISEASE.

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ALL classes of men have generalized ideas of mind according to the daily experience and the practical necessities of life of each. It is not left to the philosopher, metaphysician, and psychologist to study mind. The jurist, politician, priest, and sociologist each has his own system of mental philosophy. Nay, the policeman and the horse-breaker have each a crisp and concise theory, learned in the schools of experience and tradition—not formulated it may be, but still perfectly definite and practical. The physician in practice has, as much as any other man, opportunities of seeing a wide range of mental phenomena. He comes into intimate personal relationship with men and women in circumstances where the reasoning and feelings, the instincts and propensities of human nature are exposed to his view, with as little concealment or hypocrisy as is possible. There are very few of the serious diseases he treats but affect the minds of his patients more or less in some way. He has to study carefully the effects of their outward surroundings and of the impressions from without on the minds of his patients. He has to calculate the effect of his own speech and conduct, as well as those of all who surround them. He has to do with mind in its most undeveloped form up through all its stages of growth and education, and he has the opportunity of seeing the effects on it of every form of disease and debility. In addition to this he is called on to treat mental symptoms, when through their striking abnormality they have themselves become a disease.

The whole conduct of things in the world is necessarily so based on the assumption that every man is a responsible being with a sound mind, that any exception to this, when it occurs, has a very startling effect. In the early ages it was not admitted that such a thing was possible, and when a man's mind was clearly altered from its normal state, and his mental personality changed, they explained it by the theory that some other personality had entered temporarily into the man, driven out and overpowered the true occupant, and that the man was possessed with a devil, or some spirit good or bad

other than his own. It is certainly no wonder that before the physiology of the brain was studied such a theory was adopted. The facts were so inexplicable on any current hypothesis of mind, that they needed a supernatural cause. Looked at from the human and social point of view, no other disease at all approaches mental disorder in the terror it inspires, the sense of helplessness it causes, the deep distress to relatives, and the disturbance of all social ties. It is no wonder that its study was backward, and its treatment barbarous, up till quite recent times. But the modern scientific spirit could not, and did not, allow this field to lie fallow, and its study was hardly begun when its profound interest and great importance were seen. It was soon recognised that the mode of study of this department must be precisely the same as that required for physiology and pathology. The physiologist had to study normal mind as a form of brain energy; the physician had to investigate abnormal mind in the same observational and inductive way as he studied diseases of the chest. It was very soon apparent that the brain was the sole organ of mind, and that the functions of that organ, being multi-form, and having relationship to every part and energy of the body, could only be properly studied in relation to one another. It was found impossible to place quite apart the motion and sensation functions, the sleep, the animal appetites and instincts, the special senses, the speech, the memory, the love of life, the affective, the reasoning, and the controlling functions. The great problems thus opened up have exercised a fascination over many of the greatest men in our profession in modern times, men whose general professional work did not lie specially in the treatment of mental disease. I need only mention Pinel, Esquirol, Feuchtersleben, Pritchard, Abercrombie, Combe, Schroeder van der Kolk, Brodie, Holland, Griesinger, and Laycock. And as for the pure psychologists who are now studying mind from the physiological point of view their name is legion. In this country alone Herbert Spencer, Darwin, Huxley, Lewes, Maudsley, and Bain represent a power of original investigation and exposition scarcely ever excelled in any one department of science; and this is not wonderful, for if the highest functions of the brain and its derangements are not worthy of study by the best minds, what can be supposed to be so? Teaching mental diseases as a practical department of medicine was begun by Esquirol in France, and was greatly advanced in our own time by Griesinger in Germany. It has assumed a name (Psychiatry) and a place in Germany in almost every school of medicine there. It was begun in Edinburgh by my predecessor at the Royal Edinburgh Asylum, Dr Skae, in the year 1853. He successfully taught in a combined clinical and systematic course many generations of students. His lectures were full of interest and practical instruction. His immense experience and strong clinical faculty made him an admirable teacher. He provided at least sixteen asylums with their chief medical officers from among his assistants at

Morningside, and many more from among his pupils. It is to the late Professor Laycock that this University is indebted for introducing the teaching of Medical Psychology and Mental Diseases in 1857. He had devoted much attention to obscure nervous affections, he had a true zeal for the study of mind and mental aberration from a physiological point of view. His was a speculative mind, with a strong tendency to weave the facts which he gathered from every source and the speculations they excited in his mind into a great web of all-embracing generalization. His teaching was very suggestive, and it undoubtedly had the effect of directing the minds of many of his students towards the mental as well as the other functions of the brain. It was the means of influencing many of them in the line of study they took up. I find that no fewer than ten of the physician-superintendents of Scotch asylums were students of his; and there are still more men who have held important lunacy appointments in England, who were his students. No branch of physiology or medicine is now more actively studied than the field of brain function and disease; there has been a marked revival lately, to which Dr Laycock undoubtedly contributed; in fact, some of the most energetic writers in general cerebral physiology and pathology derived some of their original impulses from him. When I mention the names of Drs Hughlings-Jackson, Rutherford, Ferrier, Lauder Brunton, M'Kendrick, Crichton Browne, Herbert Major, Stirling, and Morrison Watson, who were all his students, I have said enough to prove this. Dr Laycock had the vantage-ground of the University position; Dr Skae had possession of the clinical field at the Royal Edinburgh Asylum, and this division was the weak point of the teaching here. Dr Laycock knew this and deplored it, and when I was appointed to my present office in succession to Dr Skae in 1873, he made very flattering and earnest overtures to me to combine the advantages of both positions. I saw that not only was the divorce between theory and practice unnatural, but that to the students it was unfair and injurious. I therefore joined Dr Laycock by a private arrangement, and my association with him was a source of the utmost pleasure and much instruction to me during the three years we worked together. No one could take part in his course without being influenced by his comprehensive ideas of the subject. Those ideas are best expressed by the title of his chief work, *Mind and Brain; or, the Correlations of Consciousness*, and by the first part of the Synopsis of his course in the University Calendar: "An Exposition of the Relations of Consciousness to the Laws of Life in general, and the Anatomy and Functions of the Brain in particular." Such was his idea of what is called Medical Psychology. In a strict sense this term is a misnomer; if psychology is a real science, it is one and indivisible, and you might as well talk of medical mathematics or medical physics as medical psychology. But inasmuch as medical men have not the time, and only a few of them the special aptitude for



the study of the whole field of psychology, that portion of it which has a relation to their physiological studies and the practical work of their profession has been divided off—not, it is true, by very defined lines—and called medical psychology, just as certain departments of electricity and acoustics may be called medical *par excellence*. An unambitious definition of medical psychology might be “Mind—as it concerns Doctors.” As regards the metaphysical department or views of mental philosophy, those of our profession who were taught them are, I suspect, inclined to agree with Goethe that “all professional men labour under a great disadvantage in not being allowed to be ignorant of what is useless.” But under any definition, you see that medical psychology embraces the study of mental diseases and something more. As this University has now limited the scope of this lectureship to mental diseases, I shall confine myself to that branch of medical psychology.

The necessity which exists for a knowledge of mental disease to medical men is best proved by a few facts and figures. An exceptional power has been granted by law to every member of our profession in practice to give a certificate, the effect of which is to deprive any British subject of his personal liberty on the ground of insanity. Surely such a responsibility implies an obligation on our part to know something about the subject of mental disease. How can we know that which we do not study? And how can the medical practitioner give advice and sign such all-important certificates about a disease which the medical student has never seen or had explained to him clinically? As well might you ask a man to give a life insurance certificate that a patient was free from heart disease who had never listened to a cardiac murmur. This ignorance is fraught with an unusual danger. While allowing, nay almost compelling us to grant lunacy certificates, the law punishes us severely when they are improperly given, whether through mere ignorance or wrong intention; and the common law of the land allows any man who thinks he has been aggrieved or wronged by such a certificate to sue and punish the granter of it. Several members of our profession have thus brought their reputations to grief, and themselves to pecuniary ruin. The fact that, out of 12,176 medical certificates of insanity and admission papers sent to the office of the Commissioners in Lunacy, 2314, or one-sixth had to be returned to the writers for amendment, does not, I fear, tend to raise the opinion of the lawyers, to whom those certificates are submitted, as to either the business power or the knowledge of insanity in our profession. I fear they are apt to ask, If the knowledge necessary to sign an ordinary lunacy certificate is so deficient, what may be expected in the still more important matter of the knowledge requisite for the treatment of the disease? I have had the last 500 certificates sent to the Royal Edinburgh Asylum gone over, and I find that 456 of them, or 91 per cent., omit a certain point, not at all important from a medical point of view, but so essential from a legal point, that Sir

Cresswell Cresswell once decided that it was a *sine quâ non* of a valid and legal certificate according to English law.<sup>1</sup> And it is not as if the signing of a certificate of lunacy were a matter of rarity. There were at the beginning of last year 83,539 persons under certificate as insane in the United Kingdom. This number required 100,117 medical certificates, or an average of at least five certificates to each practising member of our profession. This takes no account of the certificates granted in the cases of patients that have recovered or died, and no account of the certificates of mental incompetency or competency that have to be granted for other reasons than placing a patient under care. The signing of such certificates is one duty, but not the most important that falls to medical men in relation to mental disease. The mental hygiene of individuals, families, and society, the early recognition of mental symptoms, their suitable treatment, the precautions that have to be taken to prevent accidents and risk of life, the solution of the most important question of home or asylum treatment, the confidential family advice as to professions and careers in life, and as to the formation of engagements and marriages, the grave decisions that have to be come to as to questions of civil and testamentary capacity and criminal responsibility—all or any of these questions you may have before you at any time after you receive your medical qualification.

When we consider that one in every 300 of the population is a registered certified lunatic, and that 1 in 30 of those who attain the age of 20 ultimately become inmates of asylums,<sup>2</sup> the marvel is how our profession has hitherto got along so well with so little systematic teaching or clinical experience of mental disease. We must remember that for every person who is obviously insane there is probably another who has been threatened at some period of his life with its symptoms, or labours under more harmless and less obvious varieties of it. If this vast mass of brain disease is not worth study, let the general profession be freed from responsibility in regard to it; if this cannot be done, then in the name of all that is reasonable let its study find a place in every medical curriculum, as urged by the Earl of Shaftesbury, the veteran head of the English Lunacy Commission for the past forty years, and by almost all the medical witnesses of repute who gave evidence before the Lunacy Law Committee of the House of Commons of 1877. But for invidious comparisons, I think that I could show that there is more than one subject which medical students have now to study, and on which they undergo searching examinations that cannot compare in practical importance with mental diseases.

<sup>1</sup> The designation and residence, marked 4 in the statutory form. The legal importance of this part consists in the fact that it is the only part of the certificate where the patient is individualized and identified. Suppose "John Brown" is being certified without his designation and residence, what means is there of legally distinguishing him from the thousands of the same name in the country?

<sup>2</sup> Dr Chapman, *Jour. Ment. Science*, April 1879.

From another point of view the study is important, for there are now more than 500 medical appointments held in the three kingdoms in connexion with the treatment of mental diseases, as Commissioners in Lunacy, Lord Chancellor's Visitors, Inspectors of Asylums, Medical Superintendents, Assistant Medical Officers, and Consulting Medical Officers to Asylums. Most of those appointments are held by those who never had the opportunity of studying in any scientific or clinical way when students the subjects of mental disease. Even for the new degree in public health, mental hygiene and disease have been quietly ignored. A very few years must see a great change in regard to this.

Much nonsense is now-a-days talked about the relationship of the so-called specialities in medicine to the profession in general. On the one hand, they are referred to in a mysterious way, as though they were occult and very sacred side chapels off the temple of medicine, to enter which special rites had to be gone through; and on the other, they are spoken of as ugly excrescences on the noble form of the building. They are, in fact, simply the result of the enormous increase of knowledge, which renders one man or one set of men incapable of being equally versed in the whole field. The science of medicine has become so wide, that we can only cultivate it in parts. Therefore we specialize, and must specialize more and more. But, most fortunately for the future unity of our profession, its practical exigencies are such that most of its members must know something of all its specialities. The further out the speciality is from the main roads, the worse it is for itself in the long-run. It is most difficult to avoid the narrowness and the self-complacent conceit that always goes with narrowness. The department of medicine that has to do with the treatment of mental disease is, unfortunately for itself, a rather strongly marked speciality, for when patients are very ill they must be sent to hospitals for the insane under the charge of medical men who make that their business, and do not usually practise much beyond those hospitals. But then most cases have to be treated at home for a time by the family physician at first, and many cases do not need to be sent to those hospitals at all, but can be treated outside. And as time goes on, our knowledge of mental disease will become more generally diffused and more accurate, and such hospitals will be opened as fields for clinical study, as one department of Morning-side Asylum will be to you this summer. The state of things to be aimed at no doubt is, that all medical men should know something of all the specialities, that all specialists should be well grounded in general medicine and surgery, and that they should habitually mix with each other to widen their ideas. There is a law of demand and supply in this matter as in all others. If the general public did not put faith in specialists for certain special diseases, it would not go to them, and they would cease to exist. It has been said that there are now-a-days special doctors for every organ of



the body except the umbilicus, but probably the reason there are no umbilical doctors is that the usual surgical operation on the umbilical cord combines simplicity and profit to so great an extent that almost no section of the profession will consent to give it up.

The study and treatment of the diseases of the mental functions of the brain has such close relations to the study of all other brain functions, and to the treatment of all other brain disorders, and the brain is so incontestably the dominant organ of the body, affecting all its tissues, controlling all functions, regulating all its energies, that there ought to be less risk of its producing narrowness, or one-sidedness of view, than almost any other speciality. If mind is great, surely a special study of its derangements cannot be a belittling task. It might even be argued that this study is the highest branch of medicine, inasmuch as it is confessedly the most difficult, and relates to the most important part of man. The existence of mental disease affects the position and prospects of those who suffer from it more than any other disease whatever, and society and the state take more direct control of them than any other class except the criminals. When any other organ is affected by disease, it is after all merely a part of the man that suffers; when the convolutions of the brain go wrong in their mental functions, it is the man himself that is affected. The rest of the human organism looked at teleologically surely subserves the brain, and all the other functions of that organ subserve the mental. Everything that lives, looked at from the evolutionary point of view, tends towards mentalization, and all the tissues of all the nervous organs of all the types of animal life find their acme in the human brain convolutions. From the purely psychological point of view, too, a study of mental disorders is essential before the laws of mind will ever be properly understood. Pathological change always throws light on physiological function.

It has always been one of the great hopes of those who are interested in the prevention of mental disease, that a more thorough knowledge of its nature and treatment, and an extension of the knowledge we at present possess among the medical profession, would lead to a diminution of its total amount. If the brains that by inheritance had a tendency to this disease could be subjected during their development and education to the right sort of hygienic and preventive influences, beyond all doubt we should have less of the disease in the world. If during matured life those same brains could be made to avoid the exciting causes of the disease, this would certainly still further lessen the evil. If educated medical knowledge were brought to bear on the customs of our civilization to secure that they were consistent with brain health, much might be hoped for; and lastly, if the first signs that betoken danger to the mind health were observed, and the first symptoms of disease noticed, and their true significance apprehended, every physician in practice knows that their further on-set and progress could often be arrested.

I do not say that our knowledge of brain function in its large aspect, and the influences that affect it in the individual or the family, is as yet mature enough to do all these things; but how shall we know if we do not study? and are not many minds better than a few, and more likely to attain fuller knowledge of the matter? There is a curious sort of morbid delicacy, too, in the public mind about the matter, which often prevents a man, when he feels his mental balance not so secure, from consulting his doctor. That abominable and cruel phase of public sentiment, which connects shame and disgrace with mental disease, does an immense amount of harm to individuals and to society, and our profession should by all means fight against it. That this prejudice of the Middle Ages should exist at all, is the strongest proof of the general ignorance of the matter. Except our profession makes the study of mental disease more general, we shall never be able fully to combat and overcome this most injurious public feeling, because it is only by professional and scientific study that we get over the ideas of repulsiveness to many facts of nature. It was only when they were scientifically studied that surgery and midwifery overcame the ancient prejudices against them.

The first thing the physician in his capacity of medical psychologist has to do, is to form in his own mind a standard of health. And to do this he has to go to nature. He can no more do it from books than he can form a conception of the healthy breathing or heart sounds from books. He has to do with man as he exists in nature in all the stages of his mental development. No ideal man as he ought to be will suit his purposes. If he adopted such a standard, he would be inclined to look on very many of the people he met out of sorts mentally, and fit for segregation from their fellows. He cannot, like the clergyman, go to his Scriptures or his church and find his ideal; he cannot look on man as *A Mind* or *A Soul* with a troublesome body attached; he cannot shut the roads to his senses, and construct out of his subjective knowledge the man or the mind that is to be of service to him for comparison; he cannot even look on him as a bundle of faculties, feelings, and potentialities tied together with the small cord of life. His method of study must be the physiological method, assisted, as far as they can be depended upon, by his own subjective experiences and those of his patients. How is the function of sensation studied? By accurate and scientific observation as to the parts of the body where it is present, by measurements of the degree in which it resides in different organs, by examination into the nerves that convey peripheral impressions to the brain, how they end in the tissues, where they go to in the cord and in the brain. In this investigation the subjective sensations of the patient are essential, but could we ever have had any real scientific knowledge of the function of sensation had we trusted to this alone? Animals cannot express their sensations in words, and yet where would our know-

ledge have been, had not Sir Charles Bell been able by experiment on animals to demonstrate that there are distinct sets of nerves for sensation and motion? And how incomplete would have been our knowledge, how helpless our therapeutics, if the function had not been studied in its conditions of loss, diminution, exaltation, and alteration in disease! Just so it is with the function of what we may call mentalization. Whatever our philosophical or religious beliefs may be in regard to the Ego and the soul, however strongly we may feel ourselves pressed on the horns of the dilemma that to feel implies a personality, and that as yet physiology has not devised any hypothesis by which we can even conceive personality as a brain function,—in spite of this, we must, when we come to study and treat patients whose mental functions are deranged, go on the hypothesis that mentalization is a brain function as much as sensation or motion.

The student of mind from this point of view is met on the very threshold by the obvious fact, that it differs enormously in its normal manifestations in different persons and sexes, in different stages of life, and in different races. He sees, too, that it is manifestly influenced by the other functions of the organism, and the organs through which those functions are performed. These facts prepare him to accept to some degree, at least, the generalizations that previous students of the subject have made as to the existence of different mental types associated with bodily characteristics, or the doctrine of temperaments and diatheses. He sees, for example, that there are certain persons in whom the nervous functions are very active, and seem to dominate the other functions strongly. Such persons feel keenly, move quickly, and think clearly, these qualities being impressed on the form, contour, and nutrition of the whole body. He soon comes to observe that persons with such a neurotic temperament are liable to diseases special to themselves, and that when they suffer from ordinary diseases, the neurotic predominance in their constitutions often affects the character and duration of such diseases. No physician of experience but knows that neuralgias, hysteria, paralysis, and convulsions are more common among persons of this type and their children than among the general population. It is a well-known fact that in certain cases of this type, acute rheumatism, for instance, will attack the brain and cord, producing coma or chorea, and that even the syphilitic poison will by preference attack the neuroglia rather than the joints, in such neurotic constitutions, and that when such people suffer from fevers they are more apt to be delirious.

The facts of nature compel the physician to see that purely mental qualities and mental defects are transmissible from parent to child, and prepare him for the great part that heredity plays in psychological development and in mental disease. It has not yet been proved statistically whether the shape of a man's nose or the acuteness of his moral sense is most apt to be transmitted to his children



or grandchildren, but I am strongly of opinion that the latter would be found to be so.

The medico-psychological student finds that in addition to the influence of temperament, diathesis, and heredity, the working of mind in each individual is influenced daily by other organs than the brain. He finds the so-called animal and organic functions and propensities so interwoven with the purely mental functions, such inter-action and re-action between them all, that he instinctively forms the conclusion and acts on it, that he must look on the whole man—body, mind, and spirit—from the point of view of an organism whose whole needs and capacities exhibit unity and solidarity throughout. Take, for instance, the function of alimentation. No doubt the mastication, swallowing, digestion, and absorption are chiefly mechanical and chemical processes, performed in a living laboratory, and take place in the nerveless amoeba, but he would be but a blind and narrow-sighted observer who failed to see the enormous mental and moral influence that the desire for food, the appetite for food, and the varied pleasures, organic and conscious, that suitable food produces. He would soon in his practice meet with cases where in a rational man a badly-cooked dinner made his life not worth having to himself, and a torment to those about him. And a wider view would show that different kinds of foods affected the mental development of whole races of men; that the desire to get certain coveted foods stimulated the highest ingenuity and thinking power of the wisest of men, while the want or poverty of food had made civilized men into wild beasts, as during the French Revolution, or among shipwrecked sailors. The absolute dependence of the appetite for food on brain and ganglionic integrity and sound working is so often seen by physicians, that they need no physiological proof that the appetite is a brain function. What stops the appetite at once when sudden fear or joy is felt? Through what organ is it perverted during pregnancy or in hysteria? What stimulates it to ravenousness in diabetes, if it is not a brain function?

Take a function still more nearly affecting mentalization, that of the reproduction of the species. What practical student of mind can disregard it? What physician can overlook the part it plays? How directly it influences the whole affective life and history of mankind! How the ascetic religionists of all creeds, with ideal *a priori* standards of life before them, have striven to set themselves free from its influence on their minds and lives! What attempts have been made to degrade it into something almost criminal and brutish in one age, to ignore it in the next, and to idealize it in the next! The psychological physician must simply accept the facts of physiology, and regard man as a whole, mind and body. So regarding him, he is every day beset with problems that imply consideration of the reproductive functions of the human species, and their effects direct and indirect on the minds of his patients. And



the sooner he begins to regard the whole matter from the physiological and 'professional point of view, just as the obstetrician does his work, the better for himself and his patients. It will often need all his physiological knowledge and his psychological study, combined with his common sense and general knowledge of human nature, to expiscate the mental sympathies and aversions, the reflex and sympathetic irritations, and the paralyzed volitions of his pubescent, hysterical, puerperal, celibate, and climacteric patients.

A knowledge of the enormous variety of mental types seen in nature will effectually prevent the physician from setting up a Utopian and false ideal standard with which to compare deranged mind when he comes to study that subject. It is of the utmost practical importance that it should be so. Those students who attend the clinical lectures will find that there are few questions I shall so often ask as this, "What sort of man was this when he was reckoned well in mind?" "How does he now differ from his state then?" "Are his present mental peculiarities evolutions of his temperament?" "Are they connected with his diathesis?" "Do they bear relation to any disturbance of the great functions of the body?" "What bodily functions are disordered along with the mental?" "Are there any purely bodily symptoms present?" "Was the onset of the mental disease connected with any functional evolution such as puberty, with any ordinary physiological process such as menstruation, or with any extraordinary physiological cataclasm such as childbirth?" "Are any of the other great functions of the nervous centres, such as motion or sensibility, impaired? And if so, whether primarily or secondarily to the disordered mentalization?" This is the clinical mode of studying mental disease, founded on a physiological basis. It implies something far more than merely classifying the mental symptoms of your patients, and ticketing the various groups with a name. You can easily imagine the same mental symptoms to exist, and, as a matter of fact, they very often do exist, in a girl of 15 entering on puberty and in a puerperal woman, but in the latter case the bodily symptoms would be quite different from the former, the temperature perhaps being  $103^{\circ}$ , the lochia absent, the tongue dry, the pulse feeble, the uterus septic and irritated, and the general condition so weak that a few more steps downward would lead to death; while in the former the strength would be good, the pulse good, and the temperature almost normal. Both cases looked at from the point of view of mental symptoms would be called acute mania, and yet they would be quite different in etiology, in bodily symptoms, in prognosis, and in treatment.

The proper point from which to start in studying diseased mentalization being the normal physiological energy of the brain, and a recognition of the fact that the normal type is not a fixed point or line, but a wide area with far diverging promontories according to age, sex, race, education, period of life, heredity, diathesis, and tem-

perament, we next come to the question of how far mere temporary causes, such as changes in the blood-supply, excesses of work, strains of all kinds, or reflex irritations, affect the mental energy of the brain, but still keep within a line that may be and ought to be reckoned physiological. If a man works till he cannot any longer lift his arm, we do not call it paralysis; if he sleeps so soundly afterwards that no ordinary stimuli will awake him, we do not call it coma: we place neither condition out of the physiological into the pathological state. So, if a man's heart is made glad by wine or by extraordinary good news, and he shows many signs of mental exaltation unusual in him, or if he loses blood or has bad news, and is profoundly depressed, we still call those states physiological, and do not count them pathological mentalization at all. A man's power of judging and comparing his emotional condition, his inhibitory power, may all be so far paralyzed as to be in abeyance for the time, and yet we count him perfectly free from mental disease. Nay, I have seen two men in exactly the same condition for the time being, so far as mental symptoms were concerned, and I counted the one sane and the other insane. When the limits of the physiological are passed, and a man enters on a pathological state of mind, we are often utterly unable to tell the exact line where the one ends and the other begins. As Maudsley says, you might as well attempt to draw the line between light and darkness. There is no Rubicon over which a man passes from the one into the other. Insanity does not enter into a man at one door, while sanity departs at the other. This fact you should never forget, any more than the fact (to take one of the most definite ascertainable physical conditions of the human body) that you can never tell where a normal temperature ends and an abnormal one begins. You know that  $98^{\circ}$  is within the limits of normal physiological heat. You know that  $108^{\circ}$  is abnormal and pathological, but you cannot tell at what point health passed into disease.

For the study of mental disorders while the general state of mind must be the same as that in which we study ordinary bodily diseases, while it is essentially the clinical faculties that we put into exercise, yet there needs to be superadded a different kind of design and conscious effort to find out what the morbid symptoms are, more of comparison with health, more scepticism as to what the patient says directly about his own symptoms, and far more strain in the effort to draw out the patient into a veracious and open state of mind. The constant effort to interpret the clinical meanings of subtle changes in your patient's manner, and the significance of what he says and how he says it, is wearying; while the difficulties of delicately leading him over the ground where his mental deficiencies exist are often excessively great. His every word and act must be closely scrutinized, for they form part of the symptoms on which your diagnosis rests. An initial difficulty with the uninstructed is in the want of terms to express the mental symp-

toms. I have seen a man try to describe the symptoms of an ordinary case of acute delirious mania to me, and utterly fail to give any connected idea of the patient's state. Such a description as this I have often got: "He won't do anything you tell him. I can't make anything of him. He talks a lot of nonsense. He's just mad."

Though our nomenclature for the deviations from normal mentalization is as yet unscientific and incomplete, and must one of these days be revised, yet most abnormalities are capable of being in some way described or indicated. The common symptoms met with have been classified, and form the first classification of mental diseases to which I shall direct your attention. It is in reality only a classification of symptoms, not of real diseases, but the symptoms are most important and are the first things to be observed. The nomenclature this classification gives us is quite essential for our study of disordered mind, and its terms have become current in medicine, jurisprudence, and general literature. Pinel and Esquirol's original classification of mental diseases on this principle has undergone many modifications and extensions, and I, like my predecessors, have introduced some changes. The principles on which it is founded are, to take one example, that all the states of morbid mental depression are classed under one head, Melancholia, just as all the painful disorders of sensibility are called Neuralgia. Indeed the Melancholias bear a close analogy to the Neuralgias. In the one case the mental functions of the brain are affected, in the other the common sensibility. Most cases of melancholia might be called cases of mental pain. Instead of Neuralgia it might be more scientifically called Psychalgia.

Then all the states of morbid mental exaltation and excitement are classed together and called Mania, just as all the motor storms and explosions are called convulsions, eclampsias, or spasms. A typical case of mania may be considered like a mental chorea or eclampsia. There is present disordered, incoherent, involuntary, purposeless mentalization. Mania might be called Psychlampsia, if we wanted to set up a more uniform nomenclature than we have at present.

There are other cases whose symptoms consist of regularly alternating states of depression and exaltation, this rhythmical recurrence of mental pain and spasm going on during the whole course of the disease, and constituting its essential distinctive character. We have not yet invented a better name for this than the one given to it by Baillarger, who first described it, viz., *Folie Circulaire*. Though only described as a variety of mania by him, yet I think its characters are so distinctive as to vindicate for it a special place in a complete symptomatological nosology, where I have accordingly placed it.

The fixed delusional states without excitement or depression come next, the *Monomanias*. Just as we now separate the mono-



spasms and the local convulsions from the general eclampsias, I think it is better to place the cases of monomania by themselves, instead of calling them as some authors do partial mania. It is analogous to a paræsthesia, being in fact very often due to a want of correspondence or co-ordination between the impression sent up to the brain from the special senses and the real objective impressions on the senses; the impressions get distorted on their way from the organs of sense to the convolutions. For instance, if a man hears distinct articulated words which are merely the moanings of the wind to others, and if those subjective false voices call him bad names, he becomes suspicious of the people about him; this becomes a morbid habit of his mind, without any special excitement or depression, and we say he labours under monomania of suspicion. This is one way in which a delusion may arise. A true impression from a nerve of common sensibility may be misinterpreted, as when a man has really cancer of his stomach that causes him intense gnawing pain, and he believes he has rats inside him that are eating his vitals. It might help you to understand this condition better if it were called Monopsychosis.

When the morbid condition is one of mental enfeeblement it is called Dementia or Amentia, both very good terms. The conditions they represent are strictly analogous to the anæsthesias, parceses, and partial paralyses that result when the sensory and motor centres of the brain are respectively diseased. It might be called Psychoparesis.

The next on the list I have placed there, because it fills up a gap that existed in former classifications of mental symptoms. It represents the negation of mentalization resulting from disease, where the patients are insensible to external influences, will not speak, where the faculty of attention appears to be quite gone, and where they appear not to think or feel at all. I can desire no better name than the usual one of Stupor, Amentia being already appropriated to Idiocy—which, by the way, is never really mindlessness as the name would imply. Psychocoma or Psychoparalysis would express the condition.

Inasmuch as physiology has clearly demonstrated the existence of centres in the nervous system that control other nervous centres, giving the name of inhibition to the function of the former, and as we find that there are certain cases of mental disease, where an analogous function of the higher ideo-motor nerve centres seems to be deranged, where there are, in fact, states of want of inhibitory mental power without marked depression, exaltation, or enfeeblement, I have put those under a special class of states of defective mental inhibition. This might be called, for the sake of keeping up a scientific correspondence in the nomenclature, Psychokinesia.

Lastly, there is a mental state graphically described by Dr Maudsley, and which certainly represents facts in nature, the insane



temperament or neurosis insana, or, to keep up uniformity of the classification, Psychoneurosis. This consists more of potentialities of psychosis, or extraordinary and unusual assortment of mental faculties, states of feeling that are extraordinary and uncommon, and courses of conduct that seem merely automatic, and incapable of volitional regulation—all these things being the result of a hereditary neurosis, and a brain whose various functions and parts are unconformable, or whose dynamical constitution is unstable and eccentric. The following is the symptomatological classification I shall use with the chief varieties of each form:—

1. States of Mental Depression (*Melancholia, Psychalgia*):—*a.* Simple Melancholia. *b.* Hypochondriacal Melancholia. *c.* Delusional Melancholia. *d.* Excited Melancholia. *e.* Suicidal and Homicidal Melancholia.

2. States of Mental Exaltation (*Mania, Psychlampsia*):—*a.* Simple Mania (*Folie Raisonnable*). *b.* Acute Mania. *c.* Delusional Mania. *d.* Chronic Mania.

3. States of Regularly Alternating Depression and Exaltation (*Folie Circulaire, Psychorythm, Folie à Double Forme, Circular Insanity, Periodic Mania, Recurrent Mania*).

4. States of Fixed and Limited Delusion (*Monomania, Monopsychosis*):—*a.* Monomania of Pride and Grandeur. *b.* Monomania of Unseen Agency. *c.* Monomania of Suspicion.

5. States of Mental Enfeeblement (*Dementia, Amentia, Psychoparesis, Congenital Imbecility, Idiocy*):—*a.* Secondary (Ordinary) Dementia (*following Mania and Melancholia*). *b.* Primary Enfeeblement (Imbecility, Idiocy, Cretinism, *the result of deficient Brain development, or of Brain Disease in very early life*). *c.* Senile Dementia. *d.* Organic Dementia (*the result of Organic Brain Disease*).

6. States of Mental Stupor (*Stupor, Psychocoma*):—*a.* Melancholic Stupor, “Melancholia attonita.” *b.* Anergic Stupor, “Primary Dementia,” “Dementia attonita.” *c.* Secondary Stupor (*transitory after Acute Mania*).

7. States of Defective Inhibition (*Psychokinesia, Hyperkinesia, Impulsive Insanity, Volitional Insanity, Uncontrollable Impulse, Insanity without Delusion*):—*a.* Homicidal Impulse. *b.* Suicidal Impulse. *c.* Epileptiform Impulse. *d.* Animal Impulse. *e.* Dipsomania. *f.* Pyromania. *g.* Kleptomania. *h.* Moral Insanity.

8. The Insane Diathesis (*Psychoneurosis, Neurosis Insana, Neurosis Spasmodica*).

All these varieties of mental disease find their origin and flow out of excess, defects, and irregularities in the physiological functions of the brain. They may all arise from innate morbid tendencies in the organ, or from eccentric causes within or without the organism. The brain responds by thought, by sympathy, by instinctive and reflex influences to almost everything in the universe outside it, and to every tissue, organ, and energy within the

organism, and no two brains are alike in their reactions. If its constitution is unsound therefore, or if its conditions of energizing are unphysiological, the causes are innumerable various without and within for aberration and derangement, and the particular symptoms are almost as various as the causes of mental disease. More than any other, it may be said that no one ever saw two cases precisely alike. This or any other classification, therefore, only represents types and genera, not species.

Such was until recently the usual mode of studying and classifying mental diseases. It assumes that the mental symptoms are the chief things about the disease to be observed. The late Dr Skae devised, extended, and directed special attention to another mode of studying mental disease, which we may call the clinical method. It endeavours to take account of causes, and the relationship the varieties of the disease have to the great physiological periods of life, and the activities of the body other than the mental—in other words, the whole *natural history* of the diseases. I shall best show you what I mean by relating shortly the result of an investigation I have just been making as to the effects of the first appearance and development of the reproductive function on mental disease. I have taken this because the facts connected with it are in some respects very definite, and its influence on normal mentalization is confessedly most profound. At one period of life this function does not exist, at another period it does, and then, at least in one sex, it ceases to exist.

Most authorities are agreed that the average age at which the function is first evolved is about fourteen years, and Dr Matthews Duncan has proved statistically that in the female sex "the climax of initial fecundity which may be taken as proof of full development is about the age of twenty-five years."<sup>1</sup> This may be assumed to be the case for both sexes.

This whole period of twelve years from the first evolution up to the full perfection of the reproductive energy may be regarded as the physiological period of *adolescence*. Looked at from a psychological point of view it cannot be denied by any one that the latter years of adolescence are far more important than the first. For years after puberty boys and girls are still boys and girls in mind, but as a physiological fact the female sex attains its full bodily development first. At twenty-one the great majority of that sex have attained perfect physiological development, and Duncan's statistics show that their initial fecundity is then almost at its climax. But this is not so in the male sex. The growth of the beard and the form of the body do not reach full development in that sex on an average till the age of twenty-five. Mentally the difference is still more marked, I believe. The subtle but profound mental influences of adolescence have usually reached their full maturity in women three or four years before men. This is not capable of

<sup>1</sup> *Fecundity, Fertility, and Sterility*, 2d ed. p. 33.

scientific testing or statistical proof, but I believe it is the general experience that the taste for and capacity fully to appreciate and enjoy the higher kind of literature that appeals to the feelings, and the enjoyment of which implies a full and rounded emotional development, is found earlier in the female sex than the male. There are, of course, very frequent exceptions to those general rules, but for scientific purposes we must take the averages.

For this inquiry I took for the period of five years and a quarter (from 1874 till the end of the first quarter of 1879) all the cases that were admitted into the Royal Edinburgh Asylum. They amounted to 1796—917 men and 879 women. Of these 320 were between the ages of 14 and 25, viz., 195 males and 125 females. Now, if my object had merely been to arrange those 320 patients each in a classification of symptoms, it would have been simple enough: so many with exaltation under Mania, so many with depression under Melancholia, etc. That must be done, but a great deal of more information must be expiscated about each case if we are to arrange them in clinical or physiological groups, and especially if we are to have any light thrown on the question, "Did adolescence influence the mental symptoms present in those cases?" We must ask and answer the following inquiries: "In how many cases did the disease exist before the age of 14, or was of a kind with which adolescence could have nothing to do?" I found I had to deduct 90 such cases, or about one-third of the 320 who had been mentally defective or epileptic from birth, or very early ages, or laboured under organic disease, or in whom the disease came on in nursing or childbirth, leaving 230 in whom it was possible for adolescence to cause or influence the disease.

The next inquiry naturally was, "If 230 occurred in the 12 years between the ages of 14 and 25, is that number greater or less than is found in the same number of years at other ages?" I find it to be far more than between 2 and 14, but far less (10 per cent.) than between 30 and 40. At this particular age, either from adolescence or some other cause, it is clear that there arises a liability to insanity which did not before exist, but which does not cease when adolescence is past.

The next query was this: "Taking this long period of twelve years, is there any special liability during any of the years of that time?" "Does it arise at puberty, or towards the completion of the period of adolescence?" A glance at the numbers who became insane in each of the twelve years shows that the first two, that is the 14th and 15th, were especially exempt, only producing one case each, and the next two, the 16th and 17th, also very few (22). Now, the fact that there only occurred in those four years of life 24 cases out of about 1800 in all (230 of them being adolescents), does show clearly that the first onset of the reproductive function is not a dangerous one as regards liability to insanity.

The next three—the 18th, 19th, and 20th—are still low, produ-



ing only 49 cases, or an average of 16 in each year. In those three years, while puberty has occurred in nearly every individual of both sexes, yet adolescence has not been completed in many of them.

It was in the next five years, from the 21st to the 25th, that the vast majority of the cases occurred, viz., 157 of the 230, or an average of 31 in each year as compared with an average of 8 for each of the first five years. At 14 the liability to insanity was practically *nil*, from 21 to 25 it is seen to be very great. In fact, a comparison with the liability at other ages during the past five years in the admissions to the asylum shows that there is no period of life where uncomplicated insanity occurs more frequently than during the completion of the physiological era of adolescence, from 21 to 25. It must be kept in mind that I am not now speaking of the numbers becoming insane in proportion to the number of the general population alive at any particular period.

Comparing the two sexes, the total numbers and relative proportion of females are smaller in the adolescent period than at later periods of life. Adolescence does not appear to be so powerful an upsetter of mental equilibrium in women as in men.

Having elucidated those points, we come to the question, as to what mental symptoms these adolescents suffered from, and if those symptoms were in any way peculiar? While investigating this I found the complications of marriage, childbearing, and lactation in the females so common after the age of 21, that it was difficult to compare them with the males. I therefore made 21 the limit of age for them. This reduced their numbers to 40, making with the 140 males 180.

The first fact of importance is, that there were only 40 cases where the symptoms present were classed as states of mental depression or melancholia, while the rest were cases of exaltation or mania. Now the significance of this proportion is only seen by comparison. During the past five years in the Asylum there have been admitted two cases of uncomplicated mania to one of melancholia (849 to 439), whereas among the adolescents it was  $3\frac{1}{2}$  to 1 (140 to 40). And if we compare them with the cases that occurred in women at the climacteric period, 199 in number, those of mania only numbered  $1\frac{1}{3}$  to one of melancholia (112 to 87).

The proportion of states of exaltation of mind or mania, therefore, is enormously greater as compared with those of melancholia among the adolescent insane than among the insane at all ages, this excess being still more marked when compared with the cases of mental disease occurring at the climacteric period of life.

The next inquiry was, "What was the character of the mania?" I found it had several well-marked characteristics. It was, in the first place, often of a very acute, though seldom of a delirious type; in the second place, it was mostly of short duration, the patients getting soon apparently quite well, but having constant relapses after a few



weeks. Out of the 180 cases, 118, or 66 per cent., had such intermissions of sanity with subsequent relapses. This tendency to short, sharp attacks with intermissions of more perfect sanity than occurs in almost any other kind of mental disease, with relapses occurring one, two, three, four, and five times before complete recovery or dementia finally takes place, may be taken to be very characteristic of this "Insanity of Adolescence," as it may be called, for you see it was not an insanity of puberty, except in a very few cases indeed. In many of them, as the maniacal attacks passed off, there was a slight tendency to melancholia, a sort of reaction of the brain in fact. This was present in 62 cases.

Another rather well-marked characteristic was this, that a hereditary predisposition to mental disease, or at least to some of the neuroses, was present in 77 of the 180, or in 45 per cent. of the whole number. It is very difficult to get family histories of insanity in most cases, and you may multiply by two those you get if you want the truth. This is best shown by the fact, that of the 1580 cases admitted to the Asylum during the five years 1873-77, only 308 were put down as hereditary. This is only 20 per cent. as compared with the 45 per cent. among the adolescents, in whose cases no special pains had been taken to ascertain family history. A still more striking fact I discovered in regard to the heredity of the insanity of adolescents. I happened to have a personal knowledge of the history of the cases and of the families in 15 of the cases, and in 12 of these there was a hereditary predisposition to the neurosis. The insanity of adolescents is therefore predisposed to in most cases by a nervous heredity.

Another marked character of the mania was that the ideas, emotions, speech, and conduct, were all very strongly tinged by the mental characteristics of adolescence in an exaggerated or morbid way. That perversion of the reproductive nissus, the habit of masturbation, was very common, probably existing in over 50 per cent. of the cases, aggravating the symptoms, and diminishing the chances of recovery. In the females hysterical symptoms were very common, such as mock modesty, simulated pains, and a desire to attract attention. In the males heroic notions, an imitation of manly airs and manners, an obtrusive pugnaciousness and sometimes a morbid sentimentality were present. In almost all the cases the physical appearance of the males was boyish when the attack commenced, and most of the young women were girlish rather than womanly in contour.

As regards the results of treatment in those cases, 93 were discharged recovered, or 51 per cent., but then 40 were removed home or to other institutions relieved, many of whom, I know, would have been likely to recover ultimately. I only know of 26 of the 180 who became incurable. Insanity occurring at the adolescent period is therefore a very curable disorder, as compared with many other forms, though not so curable as some others, *e.g.*,

puerperal insanity, where 80 per cent. recover. Just before recovery in almost all the cases which did get better, signs of physiological manhood appeared, the beard growing, the form expanding, etc. Whenever I see those signs in such cases accompanied by mental improvement, I am inclined to give a most favourable prognosis. The mortality was extraordinarily low, only three of the 180 cases having died.

The great advantage of looking at a case of insanity not merely from the point of view of its mental symptoms, but in connexion with such a physiological period of life, is, that we come to know far more about it, and it has more interest. Such a view helps to form our prognosis, and guides us in our treatment and management. Just because those cases are connected with adolescence, I now never give them stimulants or stimulating food, using plentifully such foods as milk and cod-liver oil. I try and make them live as much as possible in the open air, and take much muscular exercise. I try to fatten them by easy means without stimulation, knowing that the completion of normal adolescence in both sexes should be characterized by a good amount of adipose tissue over the body. Under this treatment and regimen I think that more of them recover and fewer sink into dementia, than when no attention was paid to the clinical grouping of such cases or their physiological aspects, and they were simply called cases of acute mania. I think, indeed, that to the practising physician it is of the utmost importance to find out which clinical group his cases belong to.

Some kinds of insanity we can group as pathological varieties of disease; after death we can demonstrate the changes in the brain tissue, and distinctly connect them with the mental symptoms during life as in general paralysis and marked cases of senile dementia, etc.

The following are the chief varieties of insanity according to the clinical classification:—

1. General Paralysis. 2. Paralytic Insanity (*Organic Dementia*). 3. Epileptic Insanity. 4. Syphilitic Insanity. 5. Alcoholic (and Toxic) Insanity. 6. Rheumatic, Choreic, and Gouty Insanity. 7. Phthisical Insanity. 8. Puerperal Insanity. 9. Lactational Insanity. 10. Insanity of Pregnancy. 11. Insanity of Masturbation. 12. Uterine and Ovarian Insanity. 13. Hysterical Insanity. 14. Congenital Insanity. 15. Pubescent and Adolescent Insanity. 16. Climacteric Insanity. 17. Senile Insanity.